

Work Order I 137388

Friday, September 25, 2015

137388

Page 1

Item ID:

Revision ID:

Item Name:

Draw Nbr:

Start Date: 9/25/2015 1:0 Start Qty: 1.00

*** 1 ***

Revision Nbr

Required Date: 10/2/2015 Reqd Qty: 1.00

*** 1 ***

Reference: ECN 15-625

Cust Item ID:

Customer ID:

Description: UPDATE PAPERWORK PER ECN 15-625 D350-591-XXX
SEE ATTACHED

Sales Order:

Approvals:

Process Plan: MFDate: 15-9-25

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Hours

Sequence m	Work Center m	Operation Description	Set Up	Run	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐
Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER : _____ _____ _____			
Misidentified ☐	☐	Past Due ☐	☐				

List Lots

Friday, September 25, 2015 12:55:55 PM

Page 1 of 2

Criteria : Item ID: 'D350-591-113', 'D350-591-117A', 'D350-591-121', 'D350-591-121RevE', 'D350-591-122', 'D350-591-123', 'D350-591-124', 'D350-591-133', 'D350-591-211', 'D350-591-213', 'D350-591-213UP', 'D350-591-214GB', 'D350-591-214UP', 'D350-591-215', 'D350-591-216', 'D350-591-311', 'D350-591-312' All Locations
Warehouse Main Warehouse All Quantity

Item ID	Warehouse ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Type Code	Comments
Item Name	Location ID				Lot Code		
D350-591-113 Heli-Access Step, Short, High Gear	✓ Main Warehouse FG038	135868	9/14/2015	2.0000	QC21	CHG005	
D350-591-117A Pre-Flight Step, Fits LH or RH	✓ Main Warehouse FG018	112759	Total: 2.0000 5/8/2015 1.0000	only 1 ?	QC21	CHG003	
D350-591-121 Heli-Access-Step™ LH - High Gear, Short Step, Float Compatible	✓ Main Warehouse FG039	132141 134459	Total: 1.0000 6/15/2015 1.0000		QC21	CHG005	
D350-591-122 Heli-Access-Step™ RH - High Gear, Short Step, Float Compatible	✓ Main Warehouse FG039	126874	Total: 1.0000 4/28/2015 4.0000		QC21	CHG005	
D350-591-133 AFT Maintenance Step, Fits LH or RH	✓ Main Warehouse FG038	128678 x2	Total: 4.0000 4/28/2015 2.0000	only 3	QC21	CHG004	
	Main Warehouse FG038	130150 x1	3/20/2015 1.0000		QC21	CHG003	
D350-591-213 Heli-Access-Step™ LH - High Gear, Short Step, Aerazur Float Compatible	✓ Main Warehouse FG039	135413	Total: 3.0000 8/28/2015 1.0000		QC21	CHG004	
			Total: 1.0000				

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DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

List Lots

Friday, September 25, 2015 12:55:55 PM

Page 2 of 2

Criteria : Item ID: 'D350-591-113', 'D350-591-117A', 'D350-591-121', 'D350-591-121RevE', 'D350-591-122', 'D350-591-123', 'D350-591-124', 'D350-591-133', 'D350-591-211', 'D350-591-213', 'D350-591-213UP', 'D350-591-214GB', 'D350-591-214UP', 'D350-591-215', 'D350-591-216', 'D350-591-311', 'D350-591-312' All Locations
Warehouse Main Warehouse All Quantity

Item ID	Warehouse ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Type Code	Comments
Item Name D350-591-215 Heli-Access-Step™ LH - Low Gear, Short Step, Aerazur Float Compatible	Location ID Main Warehouse ✓ FG038	111408 X3	10/30/2014	3.0000		QC21 CHG003	
Total:				3.0000			
D350-591-216 Heli-Access-Step™ RH - Low Gear, Short Step, Aerazur Float Compatible	Main Warehouse ✓ FG038	111412	10/30/2014	3.0000	QC21	CHG003	
Total:				3.0000			
D350-591-311 ✓ Heli-Access-Step™ LH - High Gear, Long Step, Aerazur Float Compatible	Main Warehouse FG084	130506	8/18/2015	1.0000	QC21	CHG002	
	Main Warehouse HALL	134066	8/18/2015	1.0000	QC21	CHG001	
Total:				2.0000			
D350-591-312 Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible	Main Warehouse ✓ FG084	133268	8/14/2015	1.0000	QC21	CHG002	
Total:				1.0000			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

ENGINEERING CHANGE NOTICE

DART AEROSPACE LTD

Date: 15.09.03	Job No.:	ADR Yes/No: N	ADR Date:	ECN #: 15- 625
Product No.: D350-591		Created By: VS	Approved By: <i>[Signature]</i>	
Product Name: Heli-access step		Checked By: <i>[Signature]</i>		

Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)	Distribution	Reqd	Resp	Initial / Date (YY/MM/DD)
Director of Operations	Y	NF		DQA / QA Coord.	Y	PS / ED	
Production Manager / Coord.	Y	MP / MF		QC Coordinator	Y	PD	
Purchasing Manager / Purchasing Coord.	N	LL / CL		Customer Support	Y	SW / LM	
Production Engineering Coord.	N	DD / JLM		Customer Technical Support	Y	MB / HS	
Production Engineering Coord.	N	DL		Marketing	<i>Y</i>	<i>MB</i> / SL	
Customer Order Processing	N	SL / BG		Sales Support Manager	<i>Y</i>	CP	

Reason for Change:
Customer request to revise 600 hour inspection time to 600 hour/24 months inspection time

Documents Affected:
ICA-D350-591 Rev. 4

IF APPLICABLE: NCR: _____ PAR: _____ CAR: _____ CIR: _____ URF: _____

PAPERWORK UPDATE ☒ PARTS MUST COMPLY ☐ PREVIOUS PARTS SATISFACTORY ☒

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	Y	MB		
2	Notify Eurocopter France	N			
3	Notify Augusta Westland	N			
4	Manufacturing Licensing Agreement Update	N			

#	Engineering Actions	Reqd	Resp	Notes	Complete
5	Required Documents/Drawings/Item ID's Under Review (URF)	N			
6	Update Master Document List (MDL)	Y	VS	MDL-D350-591 Rev. L	15.09.01
7	Update Document Record (DR)	N			
8	Update Product Compatability Matrix	N			
9	Notify TC / FAA of Change (eg. ICA, 8110-3)	N			
10					

#	Document Control Actions	Reqd	Resp	Notes	Complete
11	Move / Update Electronic Files / Design Journal	Y	KJ		
12	Update Product Specification Files (Bluefiles)	Y	KJ		15.09.08 <i>[Signature]</i>
13	Update Approved/Preliminary Dwg PDF Files	N			
14	Update Product Development Summary (STC applications)	N			
15	Update QSI 021 (TC/FAA STC) and/or STC Approval List	N			
16	Create/Update Parts / STC Database	N			
17	Update / Verify Airworthiness Release Certificate Database	N			
18	Create / Update Change Record Form / Item Card Database	N			
19	Create / Update Packaging Process Plan (PPP)	N			
20	Red Decals required on Packaging Process Plan (PPP)?	N			
21	Update Controlled Supplier Documents (Qpulse) Database	N			
22	Update Grey Project Binder / Electronic Project Folder	Y	KJ		15.09.08 <i>[Signature]</i>
23	Update D-Part / M-Drawing / DSI / DEO Master Binders	N			
24	Update "Royalty Paid to" attribute (Parts sold under Dart USA STC's)	N			
25					

Description / Action:

- Send revised copy of ICA to Aero Facility Co.
- Update Product Specification Files to include ICA-D350-591 Rev. 4

mf 15-9-25 *137258*

ECN Verified & Complete: _____ Date: _____

QA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					